DOCUMENT RESUME

ED 263 997 PS 015 462

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TITLE Affective Environment and Toddlers' Social-Emotional Competence.
PUB DATE Aug 85
NOTE 24p.; An earlier version of this paper was presented at the Annual Meeting of the American Psychological Association (Los Angeles, CA, August 23-27, 1985). For a related document, see PS 015 458.
PUB TYPE Reports - Research/Technical (143) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Affective Behavior; Affective Measures; *Emotional Response; Family Environment; *Interpersonal Competence; *Mothers; Naturalistic Observation; *Parent Child Relationship; *Toddlers; Well Being

ABSTRACT

The maternal affective environment to which children are exposed, conceptualized by (1) percentage of total emotional displays (happy, sad, angry, tense, or tender) and (2) global indices of current maternal psychosocial functioning, is likely to be related to children's expression of emotions and overall social-emotional competence. Thus, prevalence of several maternal emotions were predicted to be related to other measures of mother's psychosocial functioning, prevalence of children's emotions, and indices of children's social-emotional competence. Emotional displays of 29 mothers and their toddlers were coded on videotape. Children's social-emotional competence was rated globally during situations where mother was absent. Self-report and rating measures of each mother's psychosocial functioning were also obtained. All predictions were upheld in the results. The relations of the affective environment to children's emotions and behavior were delineated by this methodology; maternal affective environment is related to concurrent indices of the child's social-emotional well-being. (Author/DST)

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Affective Environment and Toddlers' Social-Emotional Competence

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This research constitutes a portion of the author's doctoral disseration; an earlier version was presented at the 1985 American Psychological Association meetings. The invaluable assistance of Drs. Marian Radke-Yarrow, Carolyn Zahn-Waxler, Judith Torney-Purta, and Daniel Keating is gratefully acknowledged. Reprints may be requested from the author at George Mason University, Fairfax VA 22030.

Running Head: TODDLERS' AFFECTIVE ENVIRONMENT

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Abstract

The maternal affective environment to which children are exposed (conceptualized in two ways, percentage of total emotional displays and current psychosocial functioning) is likely to be related to their expression of emotions and overall social-emotional competence. Thus prevalence of several maternal emotions were predicted to be related to other measures of mother's psychosocial functioning, prevalence of children's emotions, and indices of children's social-emotional competence. Emotional displays for 29 mothers and toddlers were coded on videotape. Children's social-emotional competence was rated globally during situations where mother was absent. Self-report and rating measures of each mother's psychosocial functioning were also obtained. All predictions were upheld. The relations of the affective environment to children's emotions and behavior were finely delineated by this methodology; maternal affective environment is related to concurrent indices of the child's social-emotional well-being.

Affective Environment and Toddlers' Social-Emotional Competence

Emotions are increasingly being recognized as powerful intra- and interpersonal regulators of behavior. They organize social knowledge, mediate cognition, and communicate the nature of, and expressive behavior appropriate to, particular social situations (Campos & Barrett, 1983). According to Zahn-Waxler, Cummings, and Cooperman (1984), maternal emotions may fulfill emotion-specific communicative functions for children, in terms of modeling emotions to express, referencing, or contagion (e.g., Cummings, Zahn-Waxler, & Radke-Yarrow, 1981; Klinnert, Campos, Sorce, Emde, & Svejda, 1983).

The maternal affective environment can be operationalized in two ways: (1) percentage of total emotional displays (happy, sad, angry, tense, or tender); and (2) global indices of current maternal psychosocial functioning. Regarding the first of these conceptualizations, use of Izard's differential emotion theory could more precisely pinpoint the prevalence of, and the relations between, specific maternal and child emotions. Depressed mothers direct much anger towards their children (Colletta, 1983; Davenport, Adland, Gold,

& Goodwin, 1979; Davenport, Zahn-Waxler, Adland, & Mayfield, 1984; Weissman & Paykel, 1974). Rigorous naturalistic description of the relation of prevalence of anger and other maternal emotions to toddlers' expression of emotions and social-emotional competence is also needed in non-disordered families.

Psychosocial functioning, encompassing stress from life events, amount of social support, and mood, has been shown to be quite important in determining the quality of the family's affective environment (Aneshensel & Frerichs, 1982; Baldwin, Baldwin, Cole & Kokes, 1983; Bell, Leroy, & Stevenson, 1982). Stressful life events and negative affect are generallly negatively related to maternal emotional responsiveness, whereas positive social support lessens the effect of stress on maternal responsiveness (Crnic, 1983).

Regarding this second conceptualization of affective environment, clinical research has revealed that parental psychosocial functioning is related to children's social competence. For example, if even one parent in a family with an affectively disordered parent responds emotionally appropriately to the child, then the child is likely to be judged as socially competent (Cole, Baldwin, Balwin, & Fisher, 1982). The importance

of current psychosocial functioning has not been specified, however, for non-disordered parents; only clinical case study and epidemiological data is available. Thus it is also imperative to look at how maternal reaction to children's emotions varies according to indices of current functioning, even in non-disordered mothers, who have "down" times which may significantly affect their children's development.

Negative consequences for the child in both emotional and social spheres are predicted when the maternal affective environment breaks down due to poor psychosocial functioning and/or negative prevalent emotions (e.g., Bowlby, 1969; A. Freud, 1965; Izard & Buechler, 1981). Researchers have recently upheld this expectation using a variety of paradigms. Infants or toddlers have been shown to cope relatively poorly with stress when mothers are emotionally unavailable due to experimental conditions or respond inappropriately due to clinical depression (Cohn & Tronick, 1982; Sorce & Emde, 1981; Sameroff, Seifer, & Zax, 1982; Zahn-Waxler, Cummings, McKnew, & Radke-Yarrow, 1984; Zahn-Waxler, Cummings, Iannotti, & Radke-Yarrow, 1984). For example, such infants and toddlers are more aggressive and emotionally disregulated, play more immaturely,

and/or interact less, than those whose mothers' emotions are more positive or who are functioning more optimally.

The available research has thus suggested that both maternal emotions and psychosocial functioning are indeed salient in childrearing. Negative mood and poor psychosocial functioning have, in particular, been shown to be negatively related to the child's social-emotional competence. Finer measurement of maternal and children's emotions is needed, however, as are naturalistic investigations with non-disordered families.

Thus the hypotheses for this investigation are: (1) prevalence of maternal emotions will be related to other measures of mother's current functioning; (2) prevalence of specific maternal emotions will be related to prevalence of specific emotions in the child--e.g., predominantly positive mothers will have predominantly positive children; (3) prevalence of maternal emotions will be related to indices of child social-emotional competence--for example, more positive mothers will have more competent children; (4) indices of maternal current functioning, previously related to prevalent maternal

emotion, will also be positively related to indices of both prevalence of children's various emotions and children's social-emotional competence.

Method

Subjects

Subjects were 29 psychiatrically normal mothers (as assessed by the Schedule for Affective Disorders and Schizophrenia, Spitzer and Endicott, 1978, and Research Diagnostic Criteria categories, Spitzer, Endicott, & Robins, 1980) and their 25 to 39-month-old children (15 girls and 14 boys). Mean age of the toddlers was 31 months.

Procedure

Subjects came to the laboratory on four separate half-day occasions. During their sessions they spent much of their time in an apartment within the house in which the laboratory is located. The apartment includes kitchen, toys, television, and other objects typically found in these toddlers' home environments.

Conditions and facilities allowed for and encouraged usual daily routines, demands, and interactions between mother and child (e.g., eating, playing, resting, etc.). A number of experimental situations were, however, interposed within the rhythm

of each day, such as a stranger's arrival and mother's departure for a short time and the visit of a "doctor."

Onset and offset of each dyad member's emotion (e.g., evidence of a specific happy, sad, angry, tense/afraid, tender, or neutral emotion via facial, vocal, gestural, and/or postural means; see Denham, 1985a, for specific definitions) were coded during two ten-minute situations on videotape. These two situations were a typically unpleasant experience, the "doctor's" visit (10 minutes,including anticipation after doctor arrives and the physical examination itself), and a typically positive experience, eating lunch with mother (first 10 minutes). Prevalence of each emotion was defined as percentage of total emotion events. Percentage agreement = .87.

The child was also videotaped, on different days, in different situations, without the mother, during parts of the Ainsworth separation paradigm, play with a sibling, and a psychiatric assessment. These situations were rated using: (1) global ratings of the child's overall social competency, positive influence of others, and regulation of emotions (7-point scales; reliability of rating, assessed by Finn's r = .99--see Finn, 1970); (2) ratings of the child's happiness, cooperativeness,

social competence, play competence, outgoingness, and calmness (7-point scales; Finn's r = .92); and (3) Lewis and Michelson's emotion profiles (happiness, fear, anger, positive and negative affiliation, and competence; 5-point scales, Finn's r = .98). An aggregate score was created, hereafter called the overall social-emotional competency aggregate; it constituted the sum of standard scores for (1), (2), and (3) above. Reliability, as assessed by Cronbach's alpha, was .94.

Last, self-reports and ratings of maternal psychosocial functioning were gathered. Specifically, mothers reported their perception of the quality of social interactions and number of problem events, on the day before emotions were coded in real-time. Independent coders also rated mothers on dimensions including happiness, anxiety, acceptance of their toddler, and responsiveness, during videotaping of the entire session from which emotion coding was extracted (7-point scales, Finn's r = .72). An aggregate of current functioning was created as follows: the total current functioning aggregate = sum of standard scores for [percent positive interaction - percent negative interaction - # perceived problems + ratings for maternal happiness +

calmness + responsiveness + acceptance]. Cronbach's alpha for this aggregate was .47.

Results

Table 1 illustrates relations between prevalence of each maternal emotion and both maternal current functioning indices and prevalence of children's emotions. Mothers who had higher percentages of tender emotion events

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Insert Table 1 here

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tended to have higher aggregate scores of current functioning. Conversely, predominantly sad or tense mothers evidenced lower current functioning aggregates. Prevalence of maternal anger was not related to current psychosocial functioning. These findings validate the use of the prevalence of maternal emotions measure, and thus strengthen the following results.

Prevalence of maternal happy emotional displays was positively related to prevalence of the child's happy displays, and negatively related to prevalence of both the child's sad and angry emotions. Prevalence of maternal anger was negatively related to prevalence of the child's happy emotions, and positively related to prevalence of the child's sad and tense/afraid emotions.

Children of predominantly tense mothers showed a lower percentage of happy emotion events. Mothers who were predominantly tender had children who showed higher percentages of fear, and lower percentages of neutral events.

Prevalence of children's anger tended to be related to prevalence of maternal anger and maternal tenderness (p's < .10). Similarly, children of mothers who had a higher percentage of happy emotional displays tended to evidence more neutral emotion events (p < .10).

Table 2 shows that the child's social-emotional functioning aggregates were highly negatively related to prevalence of maternal anger, and tended to be negatively related to prevalence of maternal sadness.

Insert Table 2 here

Maternal and child's happy emotional events were positively, but non-significantly, related to the child's social-emotional competence aggregates.

Prevalence of the child's neutral emotion events was positively related to social-emotional competence, whereas prevalence of the child's sad or angry displays was negatively related to social-emotional competence

(see Table 2). Overall, these within-child correlational findings validate both the social-competence ratings and naturalistic coding of emotion.

Table 2 also illustrates the relations among current functioning indices and the child's social-emotional competency. Maternal current functioning, shown above to be highly related to maternal prevalence of emotion, was also highly positively related to child social-emotional competence.

Discussion

The positive findings for the four hypotheses outlined here uphold the advantages of a microanalytic, naturalistic approach to the study of mother/child emotions and competence. Prevalence of both maternal and child's emotions were strongly related to the child's independently assessed social-emotional competence; cross-correlations of prevalence of maternal and child's emotions were also significant. The impact of the affective environment on the child's emotions and behavior, reflected in these individual differences, was more finely delineated by the percentages yielded through real time coding than would be possible with

case study or epidemiological designs. Coding discrete

emotions in describing individual difference in affective environment was a major advantage here.

Other systems for measuring children's emotions are also likely to be too focused on one indicator of emotion (e.g., facial). Thus this measurement system appears innovative enough to be useful in a variety of problem questions; for example, it would be helpful to test theories such as Hoffman's (1975). Further research could focus on the relationship of empathy (Hoffman, 1982) to children's enduring emotional states and the maternal affective environment.

Specifically, prevalence of negative maternal and children's emotions are generally negatively related to both the child's expression of positive emotions and to the child's social-emotional competence; the converse also holds true. Thus the overall emotional climate to which the child is subjected is related to both the prevalence of the child's specific emotions and to social-emotional competency.

Measures of maternal current functioning based on self-report and global ratings were validated by their strong relations with prevalence of specific maternal emotions (and vice versa). Prevalence of maternal anger was, however, significantly negatively related to the

child's social-emotional competency, but unrelated to maternal psychosocial functioning. Thus the two operationalizations of affective environment are related, but not veridical. Possibly these two conceptualizations can be seen as parallel to maternal temperament or enduring emotions (prevalence of emotions measures) and socialization factors (current functioning) in their impact on the child's social-emotional competency (see Lewis & Michalson, 1983).

This investigation also supports and extends earlier research which indicated that others' anger displays are socioenvironmental stressors for very young children (Cummings et al., 1981). Maternal anger is clearly a stressor here, even given its low absolute level (less than one per cent; see Denham, 1985a); it is related to both the child's expression of emotions and social-emotional competence. Maternal sadness and happiness were also marginally related, in predicted directions, to the child's social-emotional competence.

These dyads' psychiatric normality is also important to keep in mind in connection with the prevalence of emotion results. These results indicate that the maternal affective environment is vital not only in disordered families (such as those previously

reported on by Zahn-Waxler, Cummings, McKnew, & Radke-Yarrow, 1984, and Zahn-Waxler, Cummings, Iannotti, & Radke-Yarrow, 1984, for example). These findings also extend the clinical research on current functioning. The social support/stress model of current functioning is important not only for the disordered or at risk.

This evidence here is, of course, correlational. The strength of these results should not obscure the fact that effects are bi-directional in the mother-child system (cf. Denham, 1985a). Corroborating data do exist, however, which show that maternal emotional displays in the two situations observed here are related to those of exhibited by their toddlers when mothers are not even present (as measured by another system; Denham, 1985b). In any case, such results suggest both the need for further naturalistic research on the affective environment and the need for applied developmental interventions to aid families in creating an affective environment conducive to the creation and continuation of comfort and competence in both mother and child.

References

Aneshensel, C.S., & Frerichs, R.P. (1982). Stress, support, and depression: A longitudinal causal model. *Journal of Community Psychology*, *10*, 363-376.

Bell, R.A., Leroy, J.B., & Stevenson, J.J. (1982). Evaluating the mediating effects of social support upon life events and depressive symptoms. *Journal of Community Psychology*, *10*, 325-340.

Bowlby, J. (1969). *Attachment and loss, Vol. I: Attachment.* New York: Basic Books.

Campos, J.J., & Barrett, K.C. (1983). Toward a developmental theory of emotion. In C. Izard, J. Kagan, & R. Zajonc (Eds.), *Emotion, cognition, and behavior*, (pp. -). New York: Cambridge University Press.

Cohn, J.F., & Tronick, E.Z. (1982). Communicative rules and the sequential structure of infant behavior during normal and depressed interaction. In E.Z. Tronick (Ed.), *Social interchange during infancy: Affect, cognition, and communication* (pp. -). Baltimore: University Park Press.

Cole, R.E. Baldwin, A.L., Baldwin, C.P., & Fisher, L. (1982). Family interaction in free play and children's social competence. In A.L. Baldwin, R.E. Cole, & C.P. Baldwin (Eds.), Parental pathology, family interaction, and the competence of the child in school. Monographs of the Society for Research in Child Development, 47, (5, Serial No. 197), 60-71.

Colletta, N.D. (1983). At risk for depression: A study of young mothers. Journal of Genetic Psychology, 142, 301-310.

Crnic, K.A. (1983). Effects of stress and social support on mothers and premature and full-term infants. Child Development, 54, , 209-217.

Cummings, E.M., Zahn-Waxler, C., & Radke-Yarrow, M. (1981). Young children's responses to expressions of anger and affection by others in the family. Child Development, 52, 1274-1282.

Davenport, Y.E., Adland, M.L., Gold, P.W., & Goodwin, F.K. (1979). Manic depressive illness: Psychodynamic features of multigenerational families. American Journal of Orthopsychiatry, 49, 24-33.

Davenport, Y.E., Zahn-Waxler, C., Adland, M.L., & Mayfield, A. (1984). Early child rearing practices in bipolar families. The American Journal of Psychiatry, 141, 230-235.

Denham, S.A. (1985). Maternal emotional dialogue and its relation to toddlers' social-emotional competence and expression of emotion. Unpublished doctoral dissertation, University of Maryland Baltimore County.

Denham, S.A. (1985b). Multivariate cross-validation of Lewis and Michelson's system for measurement of children's emotions. Unpublished manuscript, George Mason University.

Finn, R.H. (1970). A note on estimating the reliability of categorical data. Educational and Psychological Measurement, 30, 71-76.

Freud, A. (1965). Normality and pathology in childhood: Assessments of development. New York: International University Press.

Hoffman, M.L. (1975). Developmental synthesis of affect and cognition and its implications for altruistic motivation. Developmental Psychology, 11, 607-622.

Hoffman, M.L. (1982). The measurement of empathy. In C. Izard (Ed.), Measuring emotion in infants and children (pp. 279-298). New York: Cambridge University Press.

Izard, C.E. (1977). Human emotions. New York: Plenum.

Izard, C.E., & Buechler, S. (1981). Theoretical perspectives on emotions in developmental disabilities. In M. Lewis & L. Taft (Eds.), Developmental disabilities in preschool children (pp. 353-369). New York: Spectrum Publications.

Klinnert, M.D., Campos, J.J., Sorce, J.F., Emde, R., & Svejda, M. (1983). Emotions as behavioral regulators: Social referencing in infancy. In R. Plutchik & H. Kellerman (Eds.), Emotion: Theory, research, and experience (Vol. 2, pp. 57-86). New York: Academic.

Lewis, M., & Michalson, L. (1983). Children's emotions and moods. New York: Plenum Press.

Sameroff, A.J., Seifer, R., & Zax, M. (1982). Early development of children at risk for emotional disorder. Monographs of the Society for Research in Child Development, 47(7, Serial No. 199).

Spitzer, P.L., Endicott, J., & Robins, E. (1980). Research diagnostic criteria (RDC) for a selected group of functional disorders. New York: New York Psychiatric Institute.

Spitzer, P.L., & Endicott, J. (1978). Schedule for affective disorders and Schizophrenia--Life-time version. In Biometric Research. New York: New York Psychiatric Institute.

Sorce, J.J., & Emde, R. (1981). Mother's presence is not enough: Effect of emotional availability on infant exploration. Developmental Psychology, 17, 737-745.

Weissman, M.M., & Paykel, E.S. (1974). The depressed woman. Chicago: University of Chicago Press.

Zahn-Waxler, C. Cummings, E.M., & Cooperman, G. (1984). Emotional development in childhood. In G. Whitehurst (Ed.), Annals of child development (Vol. I, pp. 45-106). JAI Press.

Zahn-Waxler, C., Cummings, E.M., Iannotti, R.J., & Radke-Yarrow, M. (1984). Young offspring of depressed parents: A population at risk for affective problems. In D. Cicchetti and K. Schneider Rosen (Eds.), Childhood Depression (pp. 81-106). San Francisco: Jossey-Bass.

Zahn-Waxler, C., Cummings, E.M., McKnew, D., & Radke-Yarrow, M. (1984). Affective arousal and social interactions in young children of manic depressive parents. Child Development, 55, 112-122.

Table 1

Correlations of Maternal Current Functioning Aggregates and Unconditional Probabilities of Children's Emotions with Unconditional Probabilities of Maternal Emotions

	Mother Happy	Mother Sad	Mother Angry	Mother Tense	Mother Tender	Mother Neut.
Maternal Current Function.	.20	-.47*	-.16	-.52**	.41*	-.17
Child Happy	.41*	-.03	-.51**	-.39*	-.29	.31
Child Sad	-.53**	-.02	.51**	.20	.20	.06
Child Angry	-.41*	-.05	.34	.07	.35	-.03
Child Afraid	-.24	-.13	.40*	.08	.49**	-.37*
Child Neutral	.34	.20	-.32	.16	-.48**	.03

* $p < .05$. ** $p < .01$.

Table 2

Correlations of Unconditional Probabilities of Emotion, and Maternal Current Functioning Aggregate with Child Competence Aggregate

	Competence Aggregate
Maternal Current Functioning	.46**
Mother Happy	.22
Mother Sad	-.28
Mother Angry	-.46**
Mother Tense	-.10
Mother Tender	-.08
Mother Neutral	.06
Child Happy	.25
Child Sad	-.40*
Child Angry	-.39*
Child Afraid	-.23
Child Neutral	.38*

* $p < .05$. ** $p < .01$.